

REMARKS/ARGUMENTS

Claims 1-24 were previously pending in the application. Claim 10 is canceled, and claims 1, 3-4, 11, 13-21, and 24 are amended herein. Assuming the entry of this amendment, claims 1-9 and 11-24 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

Drawings

The Applicant submits herewith a Transmittal of Corrected Drawing(s) amending Fig. 22 to correct a typographical error.

35 U.S.C. 112, Paragraph Six

Claims 1, 3-4, 11, 13-19, and 24 have been amended to avoid interpretation of those claims under 35 U.S.C. 112, paragraph six, to avoid unnecessary limitations to the scope of the claimed subject matter.

Restriction Requirement

In the office action dated 12/28/06, the Examiner stated that the application contains more than one species of the generic invention and required the Applicant to elect a single species from among nine species identified by the Examiner. For example, the Examiner stated that claims 1-3, 8, 11-16, and 21-24 are deemed to correspond to Species III. In response to the rejection requirement, the Applicant elected with traverse Species III directed toward Fig. 16 and submitted that claims 4, 9-10, and 17 also correspond to Species III. Furthermore, in the response, the Applicant noted that, in addition to claim 1, claims 2-3 should also be identified as being generic, since the Examiner explicitly identified those claims as corresponding to each of the nine different species identified by the Examiner.

On page 2 of the present office action, the Examiner stated that the Applicant's traversal is "on the ground(s) that the invention contains more than one generic claim." This is not an accurate characterization of the Applicant's grounds for traversal. In fact, the Applicant's traversal was on the grounds that the Examiner failed to include claims 4, 9-10, and 17 as corresponding to the elected Species III.

Furthermore, in the present office action, the Examiner appears to have changed the restriction requirement. As mentioned before, in the office action dated 12/28/06, the Examiner stated that claims 1-3, 8, 11-16, and 21-24 were deemed to correspond to Species III. If the Examiner's previous restriction requirement had been maintained intact, then the present office action would have withdrawn claims 4-7, 9-10, and 17-20 from consideration. Instead, the present office action stated that claims 5-9, 12, 17-20, and 22-23 are withdrawn from consideration. Apparently, the Examiner modified the previous restriction requirement such that claims 4 and 10 were added to Species III, while claims 8, 12, and 22-23 were removed from Species III.

On page 2 of the present office action, the Examiner stated that "Applicant recites that some of the claim[s] are drawn to the elected invention when they are not." The Examiner then goes on to discuss why claims 8 and 12 should not be considered as corresponding to Species III, as if the Applicant had argued that those claims should be added to Species III. But it was the Examiner in the office action dated 12/28/06, not the Applicant, who stated that claims 8 and 12 "are deemed to correspond to Species III." Furthermore, by now including claims 4 and 10 in Species III, the Examiner evidently accepted some of the reasons for the Applicant's traversal of the original restriction requirement.

Irrespective of the Examiner's modification of the restriction requirement, the Applicant submits that claims 9, 17-20, and 22-23 should have been considered as corresponding to the elected Species III.

Claim 9 recites that the pilot signal is a single tone signal. Fig. 16 shows an embodiment in which the pilot signal is a single tone signal. Thus, claim 9 should be deemed to correspond to elected Species III.

Currently amended claim 17 recites that the adjuster in the distortion path comprises an in-phase adjuster and a quadrature phase adjuster. Fig. 16 shows an in-phase adjuster and a quadrature phase adjuster in the distortion path. Thus, currently amended claim 17 should be deemed to correspond to elected Species III.

Claims 18-20 and 22-23 are directed to the embodiment shown in Fig. 22, where Pre-Distorter 1 can be implemented using the circuitry shown in Fig. 16. Thus, claims 18-20 and 22-23 should be deemed to correspond to elected Species III.

In view of the foregoing, the Applicant (i) traverses both the original restriction requirement and the current modified restriction requirement, (ii) continues to elect Species III, and (iii) requests clarification from the Examiner as to current status of the restriction requirement.

Claim Rejections

On page 2 of the present office action, the Examiner rejected claims 1-2, 4, 10-11, 13-16, 21, and 24 under 35 U.S.C. 102(b) as being anticipated by Nojima. On page 6, the Examiner rejected claims 1-3 under 35 U.S.C. 102(b) as being anticipated by Ciesielka. For the following reasons, the Applicant submits that all of the now-pending claims are allowable over the cited references.

Claims 1, 21, and 24

Claim 1 has been amended to distinguish the present invention over the cited references. Support for the amendment to claim 1 is found, for example, in previously pending (now canceled) claim 10. According to currently amended claim 1, the predistorter arrangement comprises a predistorter, a pilot generator, and an error corrector. The predistorter processes an input signal which is required to be processed by the distorting element, to produce a predistorted input signal which is supplied to an input of the distorting element. The pilot generator generates a pilot signal in the input signal. The error corrector detects the presence of distortion signals derived from cross-modulation of the input signal on the pilot signal in the distorting element output signal to produce an error correction signal for controlling the processing of said input signal in the predistorter. The cited references do not teach or even suggest such a combination of features.

As the Examiner accurately notes, Nojima's error corrector detects the presence of distortion signals derived from intermodulation of the pilot signal in the distorting element output signal to produce an error correction signal. Significantly, however, and as apparently recognized by the Examiner, Nojima's error corrector does not detect the presence of distortion signals derived from cross-modulation of the input signal on the pilot signal in the distorting element output signal to produce an error correction signal.

On page 4 of the office action and apparently referring to previously pending claim 10, the Examiner stated that, in Nojima, "the error correction means with element 10 detects the presence of distortion signals derived from cross-modulation of the input signal on the pilot signal." The Examiner

stated further that "Just because something inherently detects these things does not mean that any thing is done with these things. All that is required by many of the claims is that these things are detected, not that anything occurs after the detection of these things."

The Applicant submits that the current amendment of claim 1 makes it clear that the error corrector does more than just detect the presence of distortion signals derived from cross-modulation of the input signal on the pilot signal in the distorting element output signal. Rather, currently amended claim 1 explicitly recites that the error corrector detects the presence of distortion signals derived from cross-modulation of the input signal on the pilot signal in the distorting element output signal to produce an error correction signal. As such, currently amended claim 1 distinguishes over the teachings in Nojima.

Ciesielka does not provide the features of currently amended claim 1 that are missing from Nojima.

For all these reasons, the Applicant submits that currently amended claim 1 is allowable over the cited references. For similar reasons, the Applicant submits that currently amended claims 21 and 24 are allowable over the cited references. Since independent claims 1, 21, and 24 are allowable, the Applicant submits that all of the withdrawn claims must now be brought back into consideration. Furthermore, since the rest of the pending claims depend directly or indirectly from claims 1, 21, and 24, it is further submitted that those claims are also allowable over the cited references.

Claim 3

According to currently amended claim 3, the predistorter arrangement further comprises a pilot remover located downstream of the amplifier and adapted to remove the amplified pilot signal from the amplifier output signal prior to or following detection of the presence of distortion signals derived from the pilot signal in the amplifier output signal. Support for the amendments to claim 3 is found, for example, in Fig. 11, which shows pilot remover 750 located downstream of amplifier 100.

Since the cited references do not teach or even suggest such a pilot remover, the Applicant submits that this provides additional reasons for the allowability of claim 3 over the cited references.

Claim 7

According to claim 7, the pilot signal is derived from the input signal. Since the cited references do not teach or even suggest such a feature, the Applicant submits that this provides additional reasons for the allowability of claim 7 (and also claim 8) over the cited references.

Claim 8

According to claim 8, the pilot signal is a frequency translated version of the input signal. Since the cited references do not teach or even suggest such a feature, the Applicant submits that this provides additional reasons for the allowability of claim 8 over the cited references.

Claim 9

According to claim 9, the pilot signal is a single tone signal. Since the cited references do not teach or even suggest such a feature, the Applicant submits that this provides additional reasons for the allowability of claim 9 over the cited references.

Claim 12

According to claim 12, the frequency of the pilot signal is frequency hopped. Since the cited references do not teach or even suggest such a feature, the Applicant submits that this provides additional reasons for the allowability of claim 12 over the cited references.

Claim 17

According to currently amended claim 17, the adjuster comprises an in-phase adjuster and a quadrature phase adjuster. Since the cited references do not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 17 over the cited references.

Claims 18 and 22

According to currently amended claim 18, the predistorter arrangement comprises first and second predistorters, first and second pilot generators, and first and second error correctors, where the first predistorted input signal generated by the first predistorter is processed by the second predistorter to produce the predistorted input signal supplied to the distorting element. Fig. 22 shows an example of the predistorter arrangement of claim 18. Since the cited references do not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 18 (and also claims 19-20) over the cited references. The Applicant submits that this similarly provides additional reasons for the allowability of claim 22 (and also claim 23) over the cited references.

Claim 19

According to currently amended claim 19, the first and second predistorters are adapted so that only one of them cancels higher order distortion. Since the cited references do not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 19 over the cited references.

Claim 20

According to currently amended claim 20, the first and second error correctors share one or more components in common. Since the cited references do not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 20 over the cited references.

Claim 23

According to claim 23, one of the predistorters is inhibited from error correction while the other carries out correction to produce a steady state, and is then enabled to carry out correction. Since the cited references do not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 23 over the cited references.

Conclusion

For the reasons set forth above, the Applicant respectfully submits that the rejections of claims under Section 102(b) have been overcome.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Respectfully submitted,



Steve Mendelsohn
Registration No. 35,951
Attorney for Applicant
(215) 557-6657 (phone)
(215) 557-8477 (fax)

Date: 6/12/07
Customer No. 22186
Mendelsohn & Associates, P.C.
1500 John F. Kennedy Blvd., Suite 405
Philadelphia, Pennsylvania 19102

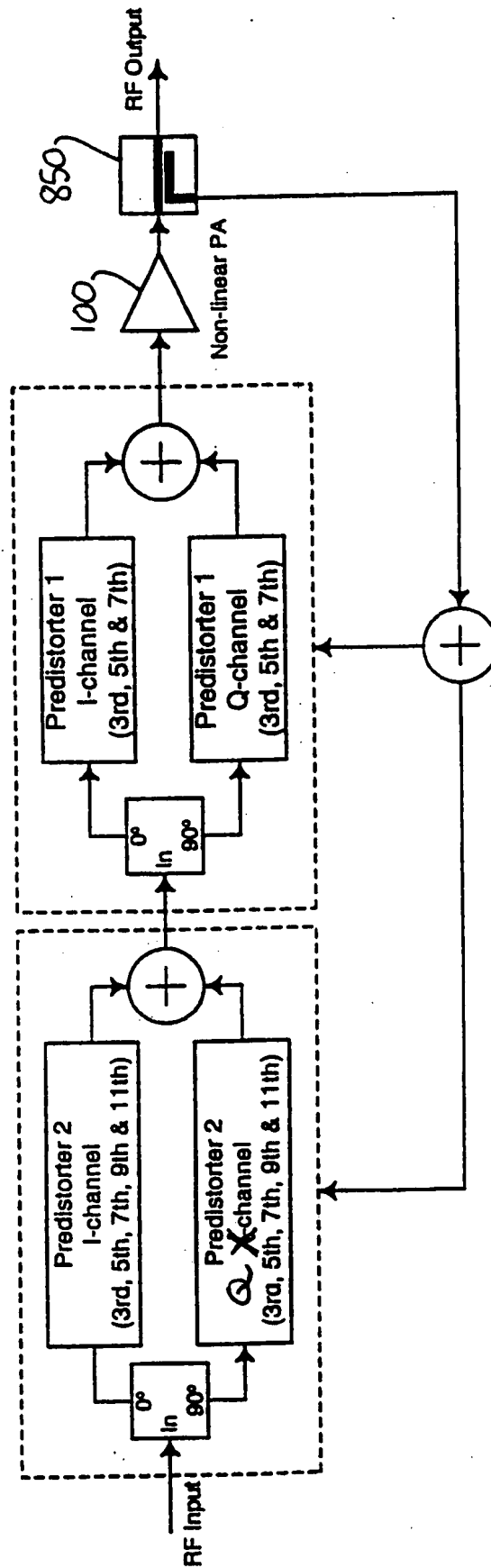


Figure 22